

CLAIMS

For the Examiner's convenience, a list of all claims is included below.

1. (Currently Amended) A method, comprising:
receiving an AAL5 CPCS-SDU at a router;
encapsulating the AAL5 CPCS-SDU into an AAL5 enhanced packet at the router;
generating an MPLS packet from the AAL5 enhanced packet, wherein the AAL5 enhanced packet comprises an ATM header and a control word; and
routing the MPLS packet over an MPLS network.
2. (Currently Amended) The method of claim 1, wherein the AAL5 enhanced packet further comprises:
an MPLS label stack; and
wherein the control word comprises a first bit that is set to a frame relay command/response bit of the AAL5 CPCS-SDU in the MPLS packet, a transport type bit to indicate that the MPLS packet comprises an AAL5 CPCS-SDU, and a length field to indicate a length of the MPLS packet.
~~a control word; and~~
~~an AAL5 CPCS-SDU.~~
3. (Original) The method of claim 2, wherein the router is a label switch router.
4. (Original) The method of claim 2, wherein the router is a label edge router.
5. (Original) The method of claim 2, further comprising:
receiving secondary SDUs of layer 2 protocols at the router, wherein the layer 2 protocols comprise Frame Relay, ATM Cell, Ethernet, and SONET.

6. (Currently Amended) A method comprising:
receiving an MPLS packet at a router;
decapsulating the MPLS packet when the MPLS packet is an AAL5 enhanced packet;
producing an AAL5 CPCS-SDU from the AAL5 enhanced packet, wherein the AAL5 enhanced packet comprises an ATM header and a control word, the control word comprising a transport type bit to indicate that the MPLS packet comprises an AAL5 CPCS-SDU.

7. (Currently Amended) The method of claim 6, wherein the AAL5 enhanced packet further comprises:
an MPLS label stack; and
wherein the control word comprises a first bit that is set to a frame relay command/response bit of the AAL5 CPCS-SDU in the MPLS packet, a transport type bit to indicate that the MPLS packet comprises an AAL5 CPCS-SDU, and a length field to indicate a length of the MPLS packet.

~~a control word; and~~

~~an AAL5 CPCS-SDU.~~

8. (Original) The method of claim 7, wherein the router is a label switch router.

9. (Original) The method of claim 7, wherein the router is a label edge router.

10. (Original) The method of claim 7, further comprising:
generating secondary SDUs of layer 2 protocols from the MPLS packet at the router, wherein the layer 2 protocols comprise Frame Relay, ATM Cell, Ethernet, and SONET.

11. (Currently Amended) A computer readable medium having stored thereon a plurality of instructions, said plurality of instructions when executed by a computer, cause said computer to perform:

receiving an AAL5 CPCS-SDU at a router;
encapsulating the AAL5 CPCS-SDU into an AAL5 enhanced packet at the router;
generating an MPLS packet from the AAL5 enhanced packet, wherein the AAL5 enhanced packet comprises an ATM header and a control word, the control word comprising a transport type bit to indicate that the MPLS packet comprises an AAL5 CPCS-SDU; and
routing the MPLS packet over an MPLS network.

12. (Currently Amended) The computer-readable medium of claim 11, wherein the AAL5 enhanced packet further comprises:

an MPLS label stack; and
wherein the control word comprises a first bit that is set to a frame relay command/response bit of the AAL5 CPCS-SDU in the MPLS packet, a transport type bit to indicate that the MPLS packet comprises an AAL5 CPCS-SDU, and a length field to indicate a length of the MPLS packet.

~~a control word; and~~

~~an AAL5 CPCS-SDU.~~

13. (Original) The computer-readable medium of claim 12, wherein the router is a label switch router.

14. (Original) The computer-readable medium of claim 12, wherein the router is a label edge router.

15. (Original) The computer-readable medium of claim 12 having stored thereon additional instructions, said additional instructions when executed by a computer, cause said computer to further perform:

receiving secondary SDUs of layer 2 protocols at the router, wherein the layer 2 protocols comprise Frame Relay, ATM Cell, Ethernet, and SONET.

16. (Currently Amended) A computer readable medium having stored thereon a plurality of instructions, said plurality of instructions when executed by a computer, cause said computer to perform:

receiving an MPLS packet at a router;

decapsulating the MPLS packet when the MPLS packet is an AAL5 enhanced packet; producing an AAL5 CPCS-SDU from the AAL5 enhanced packet, wherein the AAL5 enhanced packet comprises an ATM header and a control word, the control word comprising a transport type bit to indicate that the MPLS packet comprises an AAL5 CPCS-SDU.

17. (Currently Amended) The computer-readable medium of claim 16, wherein the AAL5 enhanced packet further comprises:

an MPLS label stack; and

wherein the control word comprises a first bit that is set to a frame relay command/response bit of the AAL5 CPCS-SDU in the MPLS packet, a transport type bit to indicate that the MPLS packet comprises an AAL5 CPCS-SDU, and a length field to indicate a length of the MPLS packet.

~~a control word; and~~

~~an AAL5 CPCS-SDU.~~

18. (Original) The computer-readable medium of claim 17, wherein the router is a label switch router.

19. (Original) The computer-readable medium of claim 17, wherein the router is a label edge router.

20. (Currently Amended) The computer-readable medium of claim ~~17~~ 12 having stored thereon additional instructions, said additional instructions when executed by a computer, cause said computer to further perform:

generating secondary SDUs of layer 2 protocols from the MPLS packet at the router, wherein the layer 2 protocols comprise Frame Relay, ATM Cell, Ethernet, and SONET.

21. (Currently Amended) A system, comprising:

means for receiving an AAL5 CPCS-SDU at a router;

means for encapsulating the AAL5 CPCS-SDU into an AAL5 enhanced packet at the router;

means for generating an MPLS packet from the AAL5 enhanced packet, wherein the AAL5 enhanced packet comprises an ATM header and a control word, the control word comprising a transport type bit to indicate that the MPLS packet comprises an AAL5 CPCS-SDU; and

means for routing the MPLS packet over an MPLS network.

22. (Currently Amended) The system of claim 21, wherein the AAL5 enhanced packet further comprises:

an MPLS label stack; and

wherein the control word comprises a first bit that is set to a frame relay command/response bit of the AAL5 CPCS-SDU in the MPLS packet, a transport type bit to indicate that the MPLS packet comprises an AAL5 CPCS-SDU, and a length field to indicate a length of the MPLS packet.

~~a control word; and~~

~~an AAL5 CPCS-SDU.~~

23. (Original) The system of claim 22, wherein the router is a label switch router.

24. (Original) The system of claim 22, wherein the router is a label edge router.

25. (Original) The system of claim 22, further comprising:

means for receiving secondary SDUs of layer 2 protocols at the router, wherein the layer 2 protocols comprise Frame Relay, ATM Cell, Ethernet, and SONET.

26. (Currently Amended) A system comprising:

means for receiving an MPLS packet at a router;

means for decapsulating the MPLS packet when the MPLS packet is an AAL5 enhanced packet;

means for producing an AAL5 CPCS-SDU from the AAL5 enhanced packet, wherein the AAL5 enhanced packet comprises an ATM header and a control word, the control word comprising a transport type bit to indicate that the MPLS packet comprises an AAL5 CPCS-SDU.

27. (Currently Amended) The system of claim 26, wherein the AAL5 enhanced packet further comprises:

an MPLS label stack; and

wherein the control word comprises a first bit that is set to a frame relay command/response bit of the AAL5 CPCS-SDU in the MPLS packet, a transport type bit to indicate that the MPLS packet comprises an AAL5 CPCS-SDU, and a length field to indicate a length of the MPLS packet.

~~a control word; and~~
~~an AAL5 CPCS-SDU.~~

28. (Original) The system of claim 27, wherein the router is a label switch router.

29. (Original) The system of claim 27, wherein the router is a label edge router.

30. (Original) The system of claim 27, further comprising:

means for generating secondary SDUs of layer 2 protocols from the MPLS packet at the router, wherein the layer 2 protocols comprise Frame Relay, ATM Cell, Ethernet, and SONET.

31. (Currently Amended) A router, comprising:

a processor; and

memory connected to the processor storing instructions for AAL5 enhanced encapsulation executed by the processor;

wherein the processor performs the enhanced AAL5 encapsulation, by

receiving an AAL5 CPCS-SDU;

encapsulating the AAL5 CPCS-SDU into an AAL5 enhanced packet;

generating an MPLS packet from the AAL5 enhanced packet, wherein the AAL5 enhanced packet comprises an ATM header and a control word, the control word comprising a transport type bit to indicate that the MPLS packet comprises an AAL5 CPCS-SDU; and routing the MPLS packet over an MPLS network.

32. (Currently Amended) The router of claim 31, wherein the AAL5 enhanced packet further comprises:

an MPLS label stack; and

wherein the control word comprises a first bit that is set to a frame relay command/response bit of the AAL5 CPCS-SDU in the MPLS packet, a transport type bit to indicate that the MPLS packet comprises an AAL5 CPCS-SDU, and a length field to indicate a length of the MPLS packet.

~~a control word; and~~

~~an AAL5 CPCS-SDU.~~

33. (Original) The router of claim 32, wherein the router is a label switch router.

34. (Original) The router of claim 32, wherein the router is a label edge router.

35. (Original) The router of claim 32, wherein the processor further performs:
receiving secondary SDUs of layer 2 protocols, wherein the layer 2 protocols comprise Frame Relay, ATM Cell, Ethernet, and SONET.

36. (Currently Amended) A router comprising:
a processor; and
memory connected to the processor storing instructions for AAL5 enhanced decapsulation executed by the processor;
wherein the processor performs the AAL5 enhanced decapsulation, by
receiving an MPLS packet;
decapsulating the MPLS packet when the MPLS packet is an AAL5 enhanced packet;
producing an AAL5 CPCS-SDU from the AAL5 enhanced packet, wherein the AAL5 enhanced packet comprises an ATM header and a control word, the control word comprising a transport type bit to indicate that the MPLS packet comprises an AAL5 CPCS-SDU.

37. (Currently Amended) The router of claim 36, wherein the AAL5 enhanced packet further comprises:

an MPLS label stack; and

wherein the control word comprises a first bit that is set to a frame relay command/response bit of the AAL5 CPCS-SDU in the MPLS packet, a transport type bit to indicate that the MPLS packet comprises an AAL5 CPCS-SDU, and a length field to indicate a length of the MPLS packet.

~~a control word; and~~

~~an AAL5 CPCS-SDU.~~

38. (Original) The router of claim 37, wherein the router is a label switch router.

39. (Original) The router of claim 37, wherein the router is a label edge router.

40. (Original) The router of claim 37, wherein the processor further performs:

generating secondary SDUs of layer 2 protocols from the MPLS packet, wherein the layer 2 protocols comprise Frame Relay, ATM Cell, Ethernet, and SONET.